AMENDMENTS TO THE SPECIFICATION:

On page 12, replace paragraph [0045] with the following:

[0045] As discussed earlier, the controller 606 receives operating parameters 602 from one or more sensors 610 on the train, or associated with the train. Additionally, the controller 606 may also receive auxiliary data 604 from other sources that affect the management and optimization of the friction between the railway wheels and the rail. Fig. 11 is one embodiment of a decision chart 1100 according to one embodiment of the invention. In Fig. 11, the train configuration is operating at a low speed and a low tractive effort has not been called ~~1002~~1102. In such a case, desired tractive effort, actual tractive effort, rail condition, and slip/slide condition are determined. If the desired tractive effort in 1104 is not obtained or obtainable under the present of planned situation or condition, there is satisfactory rail conditions for the desired tractive effort 1106, the effectiveness detection has not been disabled 1108, and a slip or slide condition is not present 1110, then controller 606 obtains consist or train data 1114 related to the weight of the consist, the train configuration length, an inertia estimate of the train 1116 and the rail condition 1118. The controller 606 then determines whether friction modifying agents 612 should be applied to the rail, where to apply the agents 612, which applicators 610 to activate for applying the agents 612, which agents 612 should be applied and the quantity or dispensation rate 1112 of agents 612 to be applied. Controller 606 instructs at ~~1114~~ 1120 one or more applicators 610 to apply the desired agents 612. In this case, Fig. 11 illustrates that friction enhancing agents should be dispensed due to the need to increase the actual tractive effort to match the desired tractive effort. Once the desired tractive effort is obtained in 1104, the process ends. Additionally, if any of the other conditions are not met such as a low tractive effort call 1102, unsatisfactory rail condition 1106, the effectiveness detection system is disabled 1108, or a slip or slide condition is detected 1110, then the process also ends.

On page 13, replace paragraph [0047] with the following:

[0047] As another example, Fig. 12 illustrates another decision flow chart 1200 for the controller 606 in another embodiment of the invention. In this embodiment, in 1202 the tractive effort is high and a high grade does not currently exist or is not located in the track to be traversed by the train. Controller 606 receives an additional parameter that indicates that the friction is too high 1204 and that a braking operation does not exist in 1206. If the train is operating at a speed that is not too low, a braking operation is not current 1206, and the effectiveness detection is not disabled ~~1208~~1210, controller 606 receives additional auxiliary data 604 as to the train weight, length and configuration 1114, an estimate of the inertia of the train 1116, and the condition 1118 of rail 710. From this data, controller 606 determines the type, quantity, dispensation rate, and location 1112 for applying a friction reducing material 1212. As with the prior example, the controller 606, by receiving input from a variety of parameters 602 and auxiliary data 604, may determine that a friction reducing agent should not be applied. For example, if the tractive effort is high or there is a high grade 1202, if the friction is already low 1204, if there is a braking operation 1206, if there is a low speed operation 1208, or if the effectiveness detection has been disabled, then the system 600 ends the process. This is illustrated in Fig. 12 at each of the decision points going to the "End."